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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,588	12/14/2001	Yoshinori Asamura	0925-0189P-SP	2015

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EXAMINER
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BELL, PAUL A

ART UNIT	PAPER NUMBER
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2675

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DATE MAILED: 04/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/014,588

Applicant(s)

ASAMURA, YOSHINORI

Examiner

PAUL A BELL

Art Unit

2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 11 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hirgurashi et al. (6,222,593) in view of Van Court (5,917,552).

With regard to claim 1 Hirgurashi et al. teaches a multi-display projector (figure 1, item 8, column 2, lines 23-39) comprising: a display pattern memory for storing display parameters that designate a region of an image to be displayed (column 2, lines 40-47); and a display unit that displays said region of the image by processing said active image signals stored in said frame memory based on said display parameters (figure 1, items 7a, 7b, 7c, 7d and 8).

Hirgurashi et al. does not illustrate the details of "an input pattern memory for storing input format parameters that specify; a number of active pixels, a number of active lines, an initial active pixel, and an active initial line of input image signals having different formats, said input format parameters being stored for each of said different formats, a frame memory

for storing active image signals extracted from said input image signals based on said input format parameters"

Hirgurashi et al. instead only illustrates using input images from a PC and dividing the image into 4 images, one image for each projector. It is obvious that it would have been useful for Hirgurashi et al. to have some knowledge of the "input format parameters" such as number of active pixels, lines, and initial pixel, of the image signal in order to properly perform his divide function. This "input format parameters" knowledge would have been predetermined and stored in a table memory or would have been measured at time of signal in order for his invention to work properly.

Van Court teaches "an input pattern memory for storing input format parameters that specify; a number of active pixels, a number of active lines, an initial active pixel, and an active initial line of input image signals having different formats, said input format parameters being stored for each of said different formats, a frame memory for storing active image signals extracted from said input image signals based on said input format parameters", (See Van Court column 1, lines 18-30 "Generally, video interface systems include a memory table containing a list of known video source names and a set of characteristics associated with each known video source", .... "

prestored control parameters for that source are used to process and display the input video signal", also see figure 4 "factory table", column 11, lines 20-67 and column 12, lines 1-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the Hirgurashi et al. apparatus to handle more than one video format as taught by Van Court because it provides a product that can also display TV signals which is useful in the home environment making the device even more commercially marketable to more people also it illustrates details of the well known concept of having "input format parameters" in table 4 which would have been essential to some one building the Higurashi et al invention.

With regard to claim 2 the combination of Hirgurashi et al. and Van Court teaches a multi-display projector claimed in claim 1, wherein: said display parameter further include the horizontal offset and the vertical offset which designate an amount of displacement of the display position when the display position of an image is displaced horizontally and vertically; and the position of a display image in the displaying means is adjusted by changing the values of said horizontal offset and said vertical offset (It is obvious that since each projector displays a different region that the horizontal and vertical offset with in the original image would be used in order to

spacially match up the regions with the correct projector see Hirgurashi et al. figure 1, item 8).

With regard to claim 3 the combination of Hirgurashi et al. and Van Court teaches a multi-display projector claimed in claim 1, further comprising: an A/D converter for converting analog image signals to digital image signals, wherein the input pattern memory stores parameters of said A/D converter based on which said analog image signals are converted to said digital image signals (See Van Court figure 3, items 17, 18 and 19).

With regard to claim 4 the combination of Hirgurashi et al. and Van Court teaches a multi-display system comprising: a plurality of multi-display projectors as claimed in claim 1, said multi-display projectors being arranged in both horizontal and vertical direction; and controlling means for controlling the operation of each of said multi-display projectors (See Hirgurashi et al. figure 1, items 7a, 7b, 7c, 7d, 8 and 3).

With regard to claim 5 the combination of Hirgurashi et al. and Van Court was found above in claim 1 to teach most of the limitations of claim 5 in addition "detecting input format parameters from input image signals, which have different formats" SEE Van Court figure 4 and column 1, lines 40-67 "measuring characteristics of the video signal".

With regard to claim 6 the combination of Hirgurashi et al. and Van Court was found above in claim 1 and 5 to teach most of the limitations of claim 6 in addition, "wherein each of the plurality of projectors includes: an input format detector for detecting input format parameters from input image signals that have different formats", the combination of Hirgurashi et al. and Van Court which use the same input format detector reads on this broad language because the claim does not require a different separate "input format detector" for each projector.

With regard to claim 7 the combination of Hirgurashi et al. and Van Court teaches the multi-display system according to claim 6, further comprising a controller for providing the display pattern memory with the display adjusting signal in order to designate the region of the image that is to be displayed (SEE Higurashi et al. a figure 1 item 5).

#### Response to Arguments

3. Applicant's arguments filed 2/11/2004 have been fully considered but they are not persuasive.

The applicant argues on pages 6-9 that the combination of Higurashi et al. and Van Court does not suggest "input format parameters".

The examiner disagrees and references the rejection above where more details of the references has been cited so as to only make more clear the previous rejection.

The applicant argues on page 10 that examiner failed to establish a "prima facie case of obviousness".

The examiner strongly disagrees because in your specification you state "it is therefor, a primary object of the invention to provide a multi-display projector that is capable of processing and displaying the images having different formats". The examiner maintains that the obvious combination of Higurashi et al. and Van Court performs this same function and also on the surface seems to encompass all that is broadly claimed the fact that the combination is capable of performing more and different functions such as "measure characteristics" should not be used to distract from the fact they also have predetermined "input format parameters" in memory table illustrated in figure four.

#### Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).



A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Bell whose telephone number is (703) 306-3019.

If attempts to reach the examiner by telephone are unsuccessful the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377 can help with any inquiry of a general nature or relating to the status of this application.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

Or Faxed to: (703) 872-9306

Or Hand-delivered to: Crystal Park II, 2121 Crystal Drive,  
Arlington, VA, Sixth Floor (Receptionist).

*Paul Bell*  
Paul Bell  
Art unit 2675  
April 18, 2004

*Chan Nguyen*  
CHANH NGUYEN  
PRIMARY EXAMINER